

**IN THE CIRCUIT COURT OF KANAWHA COUNTY, WEST VIRGINIA**

**Alex McLaughlin,**

**Petitioner,**

v.

**Case No. 20-P-246  
Hon. Tod J. Kaufman**

**Governor Jim Justice; the West Virginia  
Department of Health and Human Resources;  
and the West Virginia Board of Education,**

**Respondents.**

**AFFIDAVIT OF CLAY B. MARSH, MD**

**STATE OF WEST VIRGINIA**

**COUNTY OF MONONGALIA**

I, Clay B. Marsh, MD, after being duly sworn, depose and state as follows:

1. I am over the age of 18 and am competent to testify regarding this matter.
2. This Affidavit is based upon my personal knowledge and submitted freely and voluntarily.
3. I am a doctor, and earned my MD from West Virginia University in 1985. I am presently Vice President and Executive Dean for Health Sciences at West Virginia University. Since 3/2020, I have been advising the Governor and working with other state officials on responding to the COVID-19 crisis as Covid-19 Czar.
4. Since this pandemic began, public health guidance for school openings has been developed, including the one referenced from CDC this week <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html>. Other planning guidance also re-emphasizes controlling community spread of COVID as states make plans to restart schools, including Center for American Progress



<https://www.americanprogress.org/issues/education-k-12/news/2020/07/16/487756/3-principles-reopening-schools-safely-covid-19-pandemic/>; from Harvard University [https://globalepidemics.org/wpcontent/uploads/2020/07/pandemic\\_resilient\\_schools\\_briefing\\_72020.pdf](https://globalepidemics.org/wpcontent/uploads/2020/07/pandemic_resilient_schools_briefing_72020.pdf); from the nation's media <https://www.usnews.com/news/education-news/articles/2020-08-13/school-reopening-thresholds-vary-widely-across-the-country>; and in the highest regarded scientific journals: <https://www.sciencenews.org/article/covid-19-coronavirus-kids-schools-opening-when-how-risks>.

5. The real difference between businesses, bars, restaurants, other commercial enterprises and schools is that there is much more gathering potential in schools with the substantially increased numbers of people that are interacting each day, and the prolonged contact at school from a pure quantitative time at a single location and the mixture of vulnerable adult teachers with a myriad of students all coming from different home addresses and communities increases the likelihood of community transmission.
6. COVID spreads person to person through droplets, aerosols, talking, yelling, screaming, coughing, sneezing and just breathing, and it spreads more the longer persons spend in contact with each other.
7. Wearing masks and physical distancing are beneficial in reducing spread, as is washing or sanitizing hands and surfaces consistently. Individual responsibility for taking these measures is key to reducing the spread or spikes in the coronavirus, and reducing the need for more restrictive measures on general activities and the economy. It is clear that the principle cause of COVID spread in businesses, schools, churches and in congregate settings is the spread of COVID in the community.

8. But, in schools, even if every detail is taken to reduce classroom spread, there is still often a rise in the rate and number of people that become infected with COVID. The reason for this is prolonged exposure to children and adults in the classroom, where an expanded number of “collisions”, or person-to-person contacts, occur at these venues. One falsehood is that children are somehow not impacted by COVID infection. Since July, the number of children infected in the US has doubled. While children are less likely to become severely ill with COVID infection, we know that there are some that do. Children 17 yo and younger account for 8.1% of COVID infections, a rate of 631 COVID cases/100K children. These children account for 1.5% of all COVID hospitalizations and under 1% of COVID deaths. Children are unique in their susceptibility to MIS-C (multi-system inflammatory disease of children) and to date there are 694 cases in the US. MIS-C is a life-threatening systemic disease that is characterized by inflammation of the great blood vessels. We are learning more that there are also long-term consequences of COVID infection, including residual heart injury, loss of lung function, neurological complications and vascular complications, even in children.
9. For example, that is why WVU, in response to an increase in cases when students returned to campus, just took a cooling off period of going all online, and the rate of new cases reduced significantly, despite having great precautions in the classroom and testing all returning to campus.
10. Working with agencies across state government, we have developed the WV Model to guide the State’s response to COVID-19:
  - a. To deal with the COVID-19 generational pandemic, WV seeks to maintain a strategy of rapid cycle innovation and learning to continuously adapt their public health model for community COVID-19 spread.

b. In addition to these categories, we are following all CDC guidelines about contact tracing, isolation, quarantine, and documentation for positive or probable individuals.

c. Mitigation strategy for each threshold category and the weekly color coding map is found at <https://wvde.us/school-reentry-metrics-protocols/>.

11. Our approach is to use both Incidence Rates (Infection Rates) and Percent Positivity Rates to guide public health decisions. The following narrative explains our rationale for this approach. In addition, we have set thresholds to allow for the heterogenous and small population counties found in WV to both responsibly allow schools to begin and to create a feedback loop to incentivize reduction of community spread.

12. Incidence Rate Approach:

a. Our approach is a color-coded threshold system based on rolling 7d or 14d\* average Incidence Rates (rolling 7d or 14d\* average of daily new cases) corrected for 100k population was used (Harvard Global Health Institute). Thresholds for this model were also adapted for WV as follows - all representing a 7d or 14d\* rolling average:

- Green - 0-3 new cases/100k population
- Yellow - 3-10 new cases/100k population
- Gold - 10-15 new cases/100k population
- Orange - 15-25 cases/100k population Red - > 25 cases/100k population
- (\*14d rolling average used for counties falling outside of the 2 standard deviation intervals - counties with less than 16K population - or counties with <20 individual cases that determine a change of status over the 7d rolling average).

b. This color coding system represents the public health status of each county. These categories have impact for school mitigation strategies and guidance for athletic training, practicing and competition. These guidelines and the current state WV Department of Education Map are found at <https://wvde.us/school-reentry-metrics-protocols/>.

13. Percent Positivity Approach:

- a. While incidence rates work well to identify rates of daily new cases that reflect community spread , this metric alone unintentionally reduced the incentive for our county citizens to increase testing. The reason for this is that the Incidence Rate does not take into context the number of tests done to arrive at the daily new positive daily cases.
- b. Thus, a county could have a large daily average number of new positives based on a wide variation of numbers of people tested. Since keeping positive rate of testing at or below 5% is critical to control COVID spread (identifying those otherwise asymptomatic people that can spread COVID), this 5% threshold for Percent Positivity Rate is recommended by the Centers for Disease Control, the World Health Organization and states like NY.
- c. Because a major focus of our control program is to increase testing, we recently added a Percent Positivity Rate to our model. Combined with the Incidence Rate, adding a Percent Positivity Rate incentivizes testing. We use the following thresholds for this model - all represent a 14d rolling average.
  - Gold - <5% positive rate
  - Yellow - <4% positive rate
  - Green - <3% positive rate

14. Adding the Percent Positivity Rate to Incidence Rate for color coding decision-making

threshold is important for three reasons:

1. To encourage higher rates of testing in populations with higher incidence of disease.
2. To detect asymptomatic and pre-symptomatic individuals that can spread to others (super-spreaders) and enables more effective contact tracing.
3. To provide counties that are not able to recover using only high incidence rates with hope.

15. To return from Red or Orange, where there is no in-person teaching, a county can reach

the Gold, Yellow or Green status by the better of a Incidence Rate under 15 cases/100k population in a 7d or 14d\* rolling average or a Percent Positivity Rate of <5% positivity rate on a 14d rolling average.

16. The concern about beginning school with elevated community transmission of COVID

(Orange and Red colors) is that there will also be an accelerated spread to schools. As described, the single most important element to limit COVID spread in the classroom is controlling COVID spread in the community. The more person-to-person interaction during an accelerating phase of community COVID spread is more likely to lead to school outbreaks, and new infections in students, teachers and staff. There is no intent to be punitive with reflecting a county by county assessment of COVID spread by the color coded county map approach, but instead, the intent is to incentivize the counties to implement appropriate mitigation measures to control COVID spread (as outlined by many national authorities) to a safe level to protect citizens, promote public health and reduce deaths from COVID in WV.

17. This approach is similar to new guidance provided by the CDC <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/indicators.html>.
18. Since implementing this approach, we have already seen counties, like Cabell, reach the Green level from the Gold status in one week because of its low Percent Positivity Rate.
19. We have also seen other states, like Kentucky, follow our WV Model. And Dr. Deborah Birx, who coordinated the White House COVID-19 Taskforce was highly supportive of this model. In addition, the state of Kentucky adopted our previous protocol the past week.
20. In the future, this approach will optimally incentivize counties to approach mitigation measures (masks, physical distancing, avoiding crowds, avoiding indoor places, avoiding constant contact with people that one does not live with normally, hand washing) that will reduce the rate of spread of COVID-19. We know that the single best predictor of safe schools, businesses, and shared venues is the health of the community based on the rate of COVID-19 spread. The lower the rate of COVID spread, the more likely we will be to keep schools open and sustain school-based activities for the future.

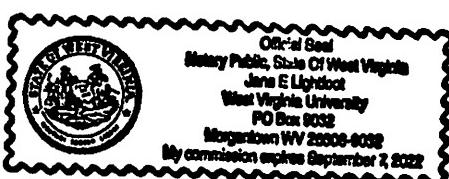
This affiant states nothing further.



Clay B. Marsh, MD

Taken, subscribed, and sworn to, before me this 21<sup>st</sup> day of September, 2020.

My commission expires: September 7, 2022.



Jane E. Lightfoot  
Notary Public